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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/392,445	09/09/1999	TAKESHI MISAWA	0905-0222P-S	1164

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EXAMINER

WHIPKEY, JASON T

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 07/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

1

Office Action Summary

Application No.

09/392,445

Applicant(s)

MISAWA, TAKESHI

Examiner

Jason T. Whipkey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

- ✓1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "32" has been used to designate both an optical viewfinder (Figure 6) and a power supply switch (Figure 9). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
- ✓2. The drawings are objected to because the word "operation" included in the label for part 50 in Figure 9 is misspelled. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

- ✓3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over No (U.S. Patent No. 6,587,140) in view of Maeda (U.S. Patent No. 6,072,465).

Regarding claims 1 and 4, No discloses a digital camera 3 (Figure 1) that accepts a memory card 7 (Figure 3). Card 7 is detachably connected to camera 3 (column 2, lines 56-57). Card 7 stores image data generated by camera 3 in DRAM 98 (column 4, lines 45-52). A liquid crystal display screen 108 is included in the case encapsulating card 7 for displaying image data stored in DRAM 98 (column 5, lines 16-17 and 47-48).

No is silent with regard to including a transmission-type LCD that has an opening in the back, wherein the camera illuminates the opening.

Maeda discloses a portable information processing apparatus that has a removable liquid crystal display (Figure 1B). The LCD is integrally formed within front bezel 1B and is transparent (column 12, lines 39-41; column 13, lines 1-4). Front bezel 1B may be removed from the information processing apparatus via rear cover 1D (column 13, lines 1-4). A cold cathode ray tube is housed in center bezel 1C for irradiating the LCD when it is inside the information processing apparatus.

Official Notice is taken that transmission-type liquid crystal display is minimally comprised of a back-lit LCD, which inherently includes an opening for the illumination to enter.

An advantage to using an LCD panel that is removable from a housing that contains an illumination source is that alternative sources of illumination may be used, such as the overhead projector shown in Figure 12. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card include an opening in the rear for use with an illuminating light.

Regarding claim 5, Maeda is silent with regard to including a diffusion plate on the back of the LCD panel.

Official Notice is taken that diffusion plates are commonly used with LCDs. An advantage to attaching a diffusion plate to an LCD is that the LCD can be illuminated smoothly and evenly, regardless of slight imperfections in the illumination source. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's LCD panel include a diffusion plate.

6. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over No in view of Maeda and further in view of Kimura (U.S. Patent No. 5,016,223).

Claim 2 may be treated like claim 1. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Kimura discloses a memory card circuit 22 (Figure 1) that receives a power supply input 14 and an extraction signal 24 generated by card insertion and extraction signal generator 25, which is part of a terminal unit (column 4, lines 50-53; column 5, lines 3-5). The terminal unit generates the signal in response to the detection of the memory card (column 8, lines 20-24). Extraction signal 24 prompts the memory card to turn on and off its internal battery 6 (column 4, lines 57-61).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card receive a power supply control signal from its docking device, similar to Kimura's system.

Claim 6 may be treated like claim 4. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Kimura discloses a memory card circuit 22 (Figure 8) that receives a power supply input 14 from a terminal unit (column 1, lines 60-64). The presence of this power supply input (and accordingly, the connection to the terminal unit) is detected by diode 4, which causes the card's internal power supply 15 to be disabled (column 1, lines 63-68).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's

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memory card disable power upon detection of a connection with its docking device, similar to Kimura's system.

7. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over No in view of Maeda and further in view of Kimura and Yoshimura (U.S. Patent No. 5,950,013).

Claim 3 may be treated like claim 1. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Kimura discloses a memory card circuit 22 (Figure 1) that receives a power supply input 14 and an extraction signal 24 generated by card insertion and extraction signal generator 25, which is part of a terminal unit (column 4, lines 50-53; column 5, lines 3-5). The terminal unit generates the signal in response to the detection of the memory card (column 8, lines 20-24). Extraction signal 24 prompts the memory card to turn on and off its internal battery 6 (column 4, lines 57-61).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card receive a power supply control signal from its docking device, similar to Kimura's system.

Both No and Kimura are silent with regard to including a chargeable battery charged by a charging controller.

Yoshimura shows a memory card 135 in Figure 36 that includes power switching section 72 for charging battery 71 (column 28, lines 50-55). Power switching section 72 receives power from host system apparatus 76 (column 28, lines 50-55), so it is inherent that charging only occurs when memory card 135 is connected to host system apparatus 76.

An advantage to recharging a battery in a memory card upon connection to a system is that data storage and processing may occur for a longer length of time after the disconnection of the memory card. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery upon connection with the host camera, such as in the way described by Yoshimura.

Yoshimura is silent with regard to including power switching section 72 ("a charging controller") within host system apparatus 76. However, an advantage to doing so is that the size memory card 135 could be reduced, thus making the card more portable. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery using a charging controller located in the host camera.

Regarding claim 9, both No and Kimura are silent with regard to including a chargeable battery charged by a charging controller.

Yoshimura shows a memory card 135 in Figure 36 that includes power switching section 72 for charging battery 71 (column 28, lines 50-55). Power switching section 72 receives power from host system apparatus 76 (column 28, lines 50-55), so it is

inherent that charging only occurs when memory card 135 is connected to host system apparatus 76.

An advantage to recharging a battery in a memory card upon connection to a system is that data storage and processing may occur for a longer length of time after the disconnection of the memory card. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery upon connection with the host camera, such as in the way described by Yoshimura.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over No in view of Maeda and further in view of Oda (U.S. Patent No. 5,490,117).

Claim 7 may be treated like claim 4. Additionally, No teaches that card 7 (Figure 2) includes battery pack 94. However, No is silent with regard to including a memory card insertion detection device.

Oda discloses an integrated circuit card, as shown in Figure 1. External power line 20 provides a power supply from the host system (column 10, lines 10-14), while an internal power supply (not shown) supplies power via internal power line 21 (column 9, lines 55-58). High-voltage detection circuit 130 detects a voltage from (and therefore the presence of) a connection to the host system (column 10, lines 29-34). High-voltage detection circuit 130 can cause the system to turn on the power supply in response (column 10, lines 44-50).

As stated in column 4, lines 28-34, an advantage to turning on a power supply in response to the connection of a memory card to a host is that the controller can check for an appropriate power supply voltage, thus protecting the system. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention for No's camera to turn on a power supply in a memory card after it has detected a connection to a host, such as in the manner described by Oda.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over No in view of Maeda and further in view of Oda and Kimura.

Claim 8 may be treated like claim 7. However, No is silent with regard to using a power-on controller for controlling the memory card's power supply.

Kimura discloses a memory card circuit 22 (Figure 1) that receives a power supply input 14 and an extraction signal 24 generated by card insertion and extraction signal generator 25, which is part of a terminal unit (column 4, lines 50-53; column 5, lines 3-5). The terminal unit generates the signal in response to the detection of the memory card (column 8, lines 20-24). Extraction signal 24 prompts the memory card to turn on and off its internal battery 6 (column 4, lines 57-61).

An advantage to controlling a memory card's power supply is that its internal battery may be disabled, preserving the battery for later use. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card receive a power supply control signal from its docking device, similar to Kimura's system.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over No in view of Maeda and further in view of Oda and Yoshimura.

Claim 10 may be treated like claim 7. However, No is silent with regard to including a chargeable battery charged by a charging controller.

Yoshimura shows a memory card 135 in Figure 36 that includes power switching section 72 for charging battery 71 (column 28, lines 50-55). Power switching section 72 receives power from host system apparatus 76 (column 28, lines 50-55), so it is inherent that charging only occurs when memory card 135 is connected to host system apparatus 76.

An advantage to recharging a battery in a memory card upon connection to a system is that data storage and processing may occur for a longer length of time after the disconnection of the memory card. For this reason, it would have been obvious to one of ordinary skill in the art at the time of invention to have No's memory card charge its battery upon connection with the host camera, such as in the way described by Yoshimura.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason T. Whipkey, whose telephone number is (703) 305-1819. The examiner can normally be reached Monday through Friday from 9 A.M. to 6:30 P.M. eastern daylight time, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber, can be reached on (703) 305-4929. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communication and (703) 872-9315 for After Final communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 306-0377.


Response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to the appropriate number above for communications intended for entry. (For informal or draft communications, please label "**PROPOSED**" or "**DRAFT**".)

Hand-delivered responses should be brought to the sixth floor receptionist of Crystal Park II, 2121 Crystal Drive in Arlington, Virginia.

JTW
JTW
July 22, 2003


TUAN HO
PRIMARY EXAMINER